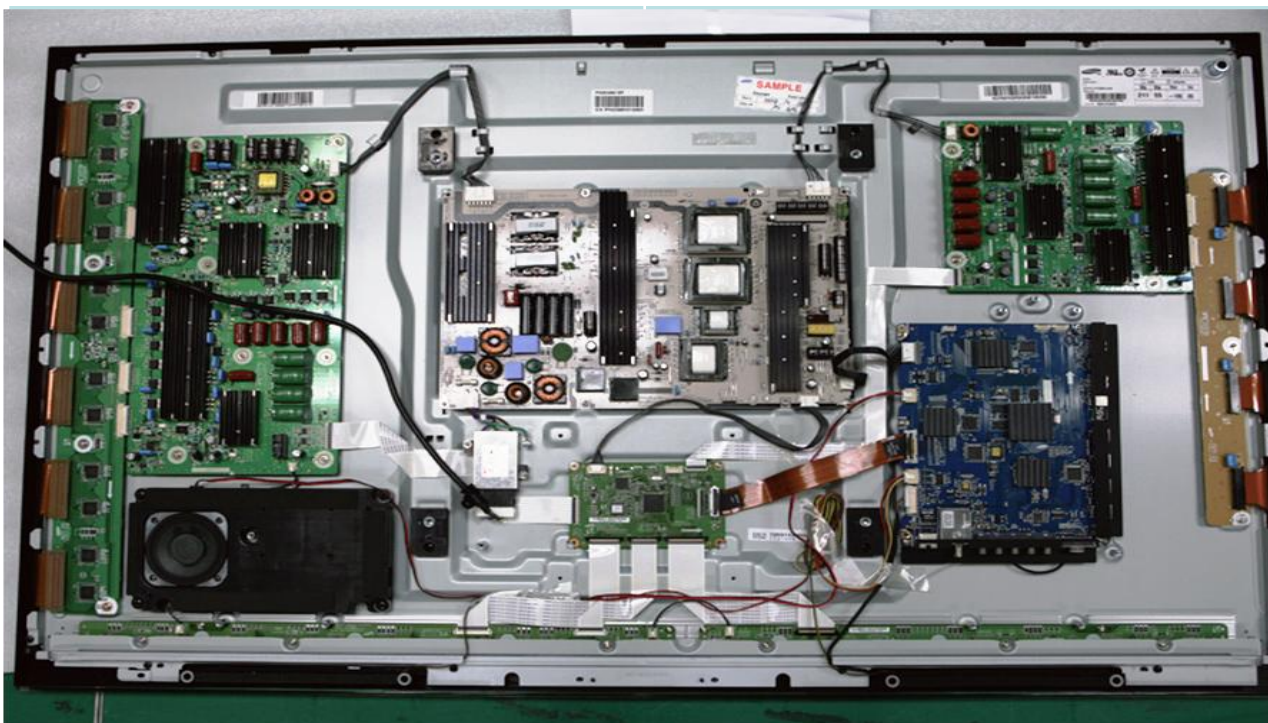




No Service Bulletins

Please check GSPN for parts update!

Quick Parts List:

Version	Parts No	Short Description
NZ02	BN44-00333A	SMPS
NZ02	BN94-03316N	Main PCB
NZ02	BN96-12958A	Buffer E
NZ02	BN96-12959A	Buffer F
NZ02	BN96-12960A	X Main
NZ02	BN96-12961A	Buffer X
NZ02	BN96-12962A	Y Main
NZ02	BN96-12963A	Buffer Y
NZ02	BN96-12964A	Logic Main PCB
NZ02	BN96-14336B	Function & IR PCB
NZ02	BN96-12712A	Panel
NZ02	BN63-06481A	Bottom Cover
NZ02	BN96-10689A	Stand Guide Neck
NZ02	BN96-12992C	Front Cover
NZ02	BN96-13008D	Rear Cover
NZ02	BN96-13019A	Stand Guide
NZ02	BN96-13431A	Stand Base
NZ02	BN40-00162A	Tuner
NZ02	BN96-12723U	LVDS Cable
NZ02	BN96-12941K	Speaker
NZ02	BN96-13273A	Speaker
NZ02	BN59-01042A	Remote
NZ02	BN63-01798B	Cleaning Cloth
NZ02	BN96-09872R	Power Cord
NZ02	BN96-10788A	Accessory Pack

HELP: 1-888-751-4086 (Tech Support)
1-866-894-0637 (FE)

GSPN

<http://gspn3.samsungcsportal.com>

PLUS ONE

<http://my.plus1solutions.net/clientPortals/samsung>

HOT TIPS

-Power On Problems: (pg. 3)

-Video Problems: (pg. 4)

Latest Firmware: Please check Samsung.com for latest update!

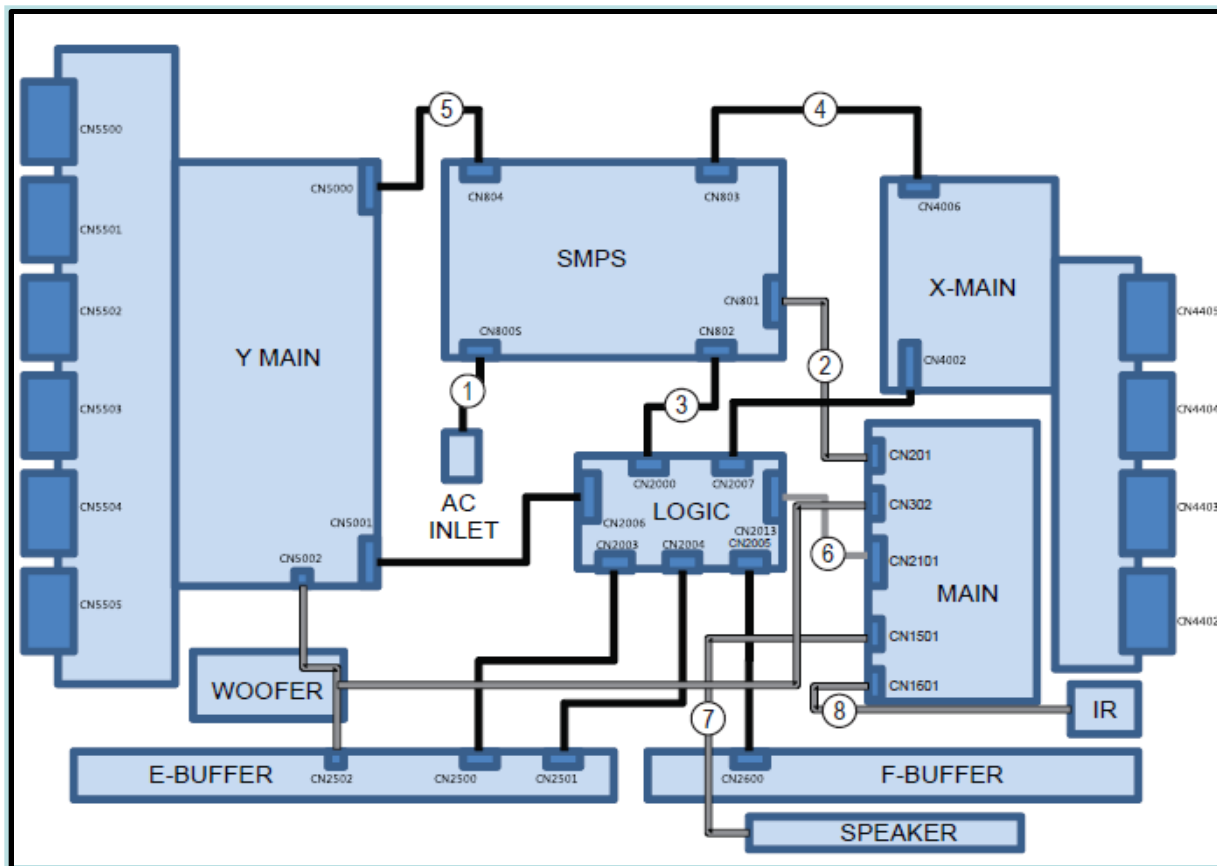
2010 PDP Firmware for Valencia 1G (T-VALAUSC, 1035.0)

■ Firmware for Valencia 1G Model

Ver: 1035.0 Folder Name: T-VALAUSC

Description: Support Netflix 2.1 and MLB.tv apps. And this firmware prevents below issues:

- 3D picture judders when 'Motion Judder Canceller' is set to 'Smooth' or 'Standard'.
- 'USB Power Overload' message pops up even USB port is not connected
- HDMI ports recognition error and signal loose
- Plug & Play is displayed whenever turning on TV.



Power On Sequence:

1. STBY 5V (CN801, #2, 5v)
2. PS_ON (CN801, #1, 3.3v-0v)
3. VS_ON (CN802, #6, 0-3.3v)
4. Panel should illuminate briefly

② CN801 (SMPS) ↔ CN201 (Main Board)			
Pin No.	Signal	Pin No.	Signal
1	PS_ON	10	18V
2	STD5V	11	18V
3	5.3V	12	5.3V
4	GND	13	5.3V
5	GND	14	GND
6	GND	15	GND
7	GND	16	15V
8	N/C	17	15V
9	N/C	18	15V

③ CN802 (SMPS) ↔ CN2000 (Logic Board)		④ CN803 (SMPS) ↔ CN4006 (X Board)	
Pin No.	Signal	Pin No.	Signal
1	D5.3V	1	Vg
2	D5.3V	2	GND
3	GND	3	GND
4	GND	4	Vs
5	PS_ON	5	Vs
6	VS_ON		

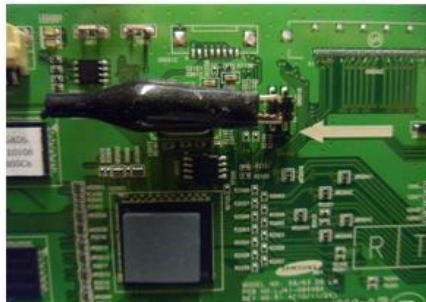
⑤ CN804 (SMPS) ↔ CN5005 (Y Board)	
Pin No.	Signal
1	Vs
2	Vs
3	GND
4	Vg
5	GND
6	Va

⑧ CN1601 (MAIN Board) ↔ POWER&IR			
Pin No.	Signal	Pin No.	Signal
1	IR	6	KEY_INPUT1
2	AGND_IN	7	KEY_INPUT2
3	A5V	8	AGND_IN
4	LED_STB	9	A5V
5	BUZZER	10	LED_CTRL

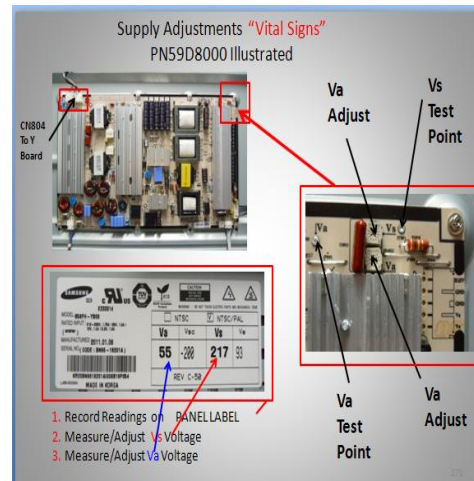
“Troubleshooting”

Activating Power & Logic Board Test Patterns without Main Board:

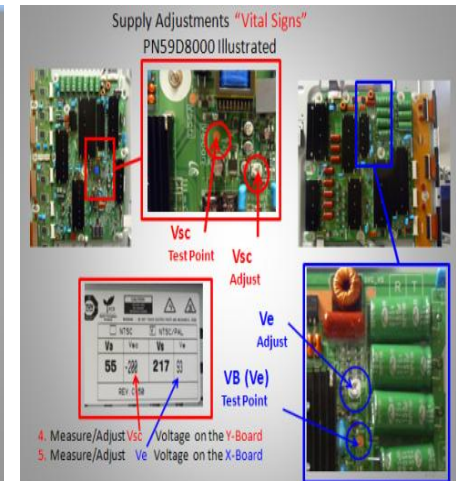
1. Remove Power Cord to Panel
2. Short Highest 2 Pin #s on Logic Board Test Jig (Can be 4 Pin or 6 Pin)



3. Remove Power Connector at Main Board (keeping connection to SMPS)
4. Short “Power On” Pin to Circuit Ground on Power Connector to SMPS.
5. Connect Power Cord to Panel



Sample



Power Supply Trouble Shooting Notes:

2010/2011 models

Will not be run with the “X” or “Y” main disconnected. The SMPS will shut down immediately. However if a meter is first connected to the test point when power is applied it will read the correct voltage briefly before shutting down. (You have enough time to check key voltages)

CAUTION: Do not reconnect any connectors to SMPS or Y/X Boards until power has been turned off long enough for Vs to drop below 10V or damage will occur to X or Y Boards.

SMPS Over Current Protection

If a short circuit occurs on either the VS or VA voltage lines, the SMPS stops operating, but should not fail. When the short circuit is removed from the source line, the Power Supply will operate normally again.

Many SMPS Supplies are replaced needlessly!

“VITAL SIGNS”

When troubleshooting, It's very important to first check **Vs, Va, Vsc & Ve**. If **Vs** is missing (0V), disconnect power and check for short. Use ohm meter to measure resistance while disconnecting Y-Board & X-Board supply feeds one at a time.

Turn Power On and Test SMPS with shorted connector removed for correct Vs voltage verification. (It may only come up briefly but to full level). Be careful not to reconnect power connectors until Vs falls below 10V.

If **Va** is low or missing, disconnect power connectors to Address Boards and Check to see if SMPS Supply is restored. (Note Va feed normally passes through the Y-Drive to the Address Boards (Logic Buffer Boards). If **Vsc** is low or missing and Vs is OK, the failure is with the **Y-Board** since the Y-Board generates the Vsc voltage from the supplied Vs.

If **Ve** is low or missing and Vs is OK, the failure is with the **X-Board** since the Ve is generated by the X-Board from the supplied Vs. (Please note: In some rare cases the Ve is generated by the Y-Board fed to the X-Board.)

Other SMPS Voltages:

Check Low Voltage feeds to the Main Board and other supplied Assemblies.

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation

- Customer Picture Test** (if available)
- "Display"** (If display is OK source is suspected)
- Substitute with known good Source
(**external DVD or Signal Generator**)

2. Using Test Patterns in Service Mode

- ENTERING SERVICE MODE -

Customer Remote:

- Power off
- Mute, 182, Power

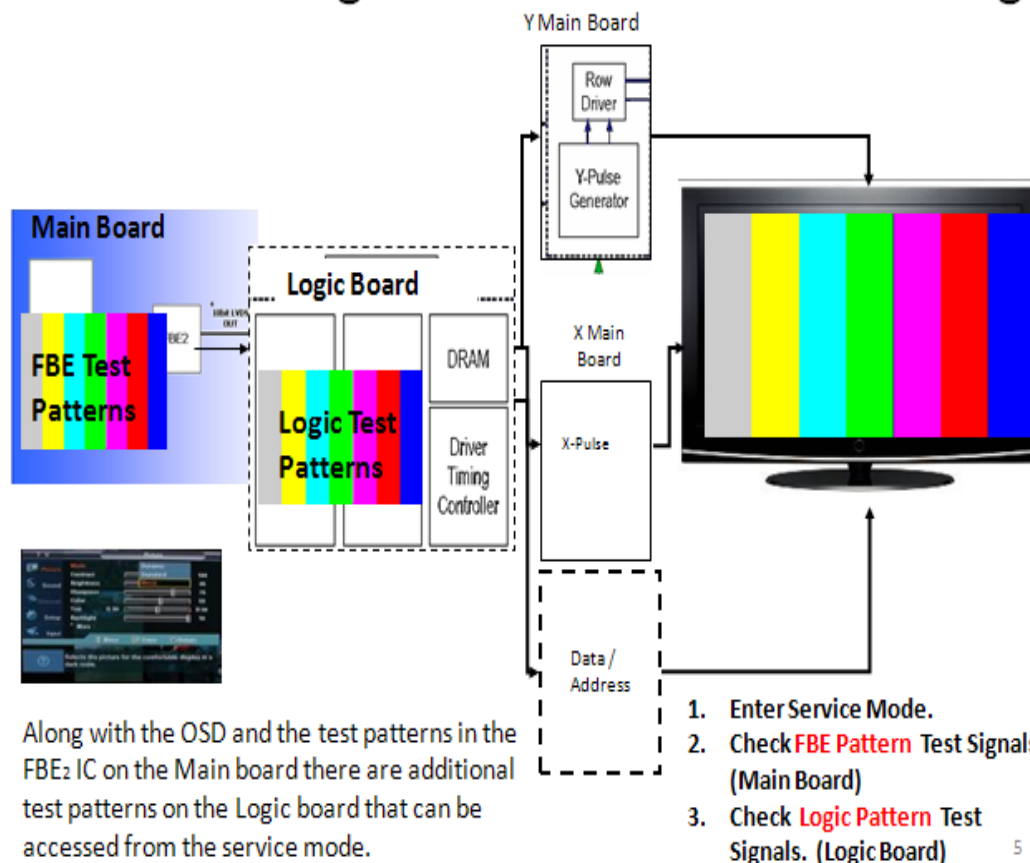
Service Remote:

- Power On
- Info, Factory

3. Determine cause

- If Logic pattern is NG; Logic board, Logic buffers or Panel are suspect.
- If FBE patterns is NG and Logic is OK; Main or LVDS cable are suspect.
- If both are OK it is likely a source issue.

2010 PDP Signal Path for Troubleshooting



ALIGNMENTS & OPTION BYTES :

1. Check/Adj. VS, VA, VE, & VSC according to Panel Label and Diffusion test. (see **bulletins** for any special notes before making changes)
2. Check/Set Option Bytes:
 - ENTER SERVICE MODE -
 - a) Customer Remote: Power off; Mute, 182, Power On
 - b) Service Remote: Power On; Info, Factory

Model Code:	PN50C6500TFXZA					
	Option					
Side Label	Type	Model	Tuner	Light Effect	Country	Front Color
NZ01	50FArV4	PC6500	SEMCO	OFF	USA	T-C-Black
NZ02	50FArV4	PC6500	SEMCO	OFF	USA	T-C-Black
N003	50FArV4	PC6500	SEMCO	OFF	USA	T-C-Black
N004	50FArV4	PC6500	SEMCO	OFF	USA	T-C-Black

DIFFUSION TEST/ADJ. (cell miss-firing, older units)

- Allow the unit to warm up 15 to 20 minutes
- Access the Burn Protect Sig. Pattern in Cust. Menu.
- Adjust the Vs volts until screen errors are gone in both dark and bright areas.
- Adjust the Vs volts within +/- 10V on the panel label.



SPECIAL NOTES:

See bulletin “Red Dots” for correction/adjustments for this model.